

ABSTRACT

A mobile communication system is designed with an input circuit coupled to receive a first plurality of signals ($r_j(i + \tau_j)$, $i=0-N-1$) during a first time (T0-T1) from an external source and coupled to receive a second plurality of signals ($r_j(i + \tau_j)$, $i=N-2N-1$) during a second time (T1-T2) from the external source. The input circuit receives each of the first and second plurality of signals along respective first and second paths (j). The input circuit produces a first input signal (R_j^1) and a second input signal (R_j^2) from the respective first and second plurality of signals. A correction circuit is coupled to receive a first estimate signal (α_j^1), a second estimate signal (α_j^2) and the first and second input signals. The correction circuit produces a first symbol estimate (S_1) in response to the first and second estimate signals and the first and second input signals. The correction circuit produces a second symbol estimate (S_2) in response to the first and second estimate signals and the first and second input signals.